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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,899	09/22/2003	Hiroshi Nakano	117221	6804

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EXAMINER	
JOERGER, KAITLIN S	
ART UNIT	**PAPER NUMBER**
3653	

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/664,899	NAKANO, HIROSHI	
	Examiner	Art Unit	
	Kaitlin S. Joerger	3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 April 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7 and 9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 5-9* is/are rejected.

7)☒ Claim(s) *3 and 4* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim1, 2 and, 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsurumi et al.

Tsurumi et al. teaches a rotary clutch device, comprising: a tooth-partially-lacking gear, 6, that can mesh with a drive gear, 4, and is given initial rotation force; a rotatable cam body, 14, that is concentric with the tooth-partially-lacking gear; and an elastic body, 10.

He further teaches an engagement lever, 7a, that is engaged with and disengaged from an engagement step, 13, according to an operation of an actuator, 7, so that the tooth-partially-lacking gear starts to rotate; and rotation force of the tooth-partially-lacking gear is transmitted to the cam body via the elastic body.

Tsurumi et al., however, teaches that the engagement step, 13, is located on the tooth-partially-lacking gear. The function of the engagement step of Tsurumi et al. is to stop the rotation of the tooth-partially-lacking gear, which is the same function as claimed by the applicant. Therefore, it has been determined that the engagement step of Tsurumi et al. is functionally equivalent to the engagement step of the applicant's invention, and the location of the step on the cam body, as claimed by the applicant, does not patentably distinguish the applicant's invention over the prior art. It would have been obvious to one of ordinary skill in

the art to place the engagement step on the tooth partially-lacking gear instead of on the cam body, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japiske*, 86 USPQ 70.

Regarding claim 2, Tsurumi et al. further teaches a first support portion, 11, on the cam body; a second support portion, 9, on the tooth-partially-lacking gear; where the first and second support portion oppose each other; and both ends of the elastic body, 10, are supported by the first and second support portions.

He further teaches a sheet feeder, comprising: a sheet stacking unit, see figure 17; a sheet feed roller, 3; and a rotary clutch device as described above. He also teaches an image forming apparatus, comprising: a sheet stacking unit, see figure 17; a sheet feed roller, 3; an image forming unit, 23; and a rotary clutch device as described above.

Tsurumi et al., more broadly, teaches a rotary clutch device, comprising: a first rotating body, 6, with which a rotating force is supplied by a driving source, 4; a second rotation body, 14, disposed concentrically wit the first rotating body, the second rotating body with which the rotating force is supplied by the first rotating body; an engagement portion, 6a, being engageable with the second rotating body to restrict rotation thereof; and an elastic body, 10, disposed between the first and second rotating bodies to transmit rotating force from the first to the second rotating body. The elastic portion being compressed when the engagement portion restricts the rotation.

The first rotating body, 6, of Tsurumi et al. being disposed about a rotating axis, having a first opposing surface perpendicular to the rotating axis; a second rotating body, 14, disposed concentrically with the first rotating body, the second rotating body having second opposing

surface opposed to the first opposing surface and perpendicular to the axis; a restriction portion, 6a, capable of restricting rotation of the second body; an elastic portion or impact absorber, 10; the first surface includes a first support, 9; the second surface includes a second support, 11; and the elastic portion, 10, is arranged between the first and second supports.

Allowable Subject Matter

Claims 3 and 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Us Patent 6,070,867 to Tsurumi et al. is considered by the examiner to be the closest prior art. Tsurumi et al. teaches all of the features of claim 3, and the claim from which is depends, claim 1, including a first contact portion, 14a, on the came body; a second contact portion, 6a, on the tooth-partially-lacking gear; where in the first and second contact portions are opposed to each other in a rotation direction. However, Tsurumi et al. fails to teach a flat elastic body that is fixed to at least one of the first and second contact portions.

The examiner did not find any other teaching among the prior art that could be combined with the Tsurumi et al. reference to teach such a feature. Therefore, claim 3 and claim 4, which depends from claim 3, were found to contain allowable subject matter.

Response to Arguments

Applicant's arguments filed 26 April 2006 have been fully considered but they are not persuasive.

Regarding the applicant's statement that there is no indication of claim 2 being rejected, and it is therefore assumers that claim 2 is in condition for allowance. The applicant's attention is drawn to the Office Action Summary, which lists claim 2 as one of the rejected claims. It is true that the number 2 was not listed in the rejection statement on page 2 of the office action, however, it is clear that the subject matter of claim 2 was addressed in the rejection, see the second full paragraph on page 3 of the office action.

Regarding the applicant's argument that the Tsurumi reference fails to that the rotation force of the tooth-partially-lacking gear is transmitted to the cam body via the elastic body, the examiner does not agree. The applicant's attention is drawn to column 5, lines 62 through column 6, line 3, column 6, lines 11-40, column 6, lines 51-64, column 7 lines 35-44, column 8 lines 24-38, and column 8, lines 46-67. In each of these excerpts the Tsurumi reference teaches that the rotation force of the tooth-partially-lacking gear, 6, is transmitted to the cam body via the elastic body, 10.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaitlin S. Joerger whose telephone number is 571-272-6938. The examiner can normally be reached on Monday - Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on 571-272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ksj

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